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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,374	11/24/2003	Barry Shapiro	LPI-228US	4730

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EXAMINER

EDGAR, RICHARD A

ART UNIT	PAPER NUMBER
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3745

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/720,374	Applicant(s) SHAPIRO ET AL.	
	Examiner Richard Edgar	Art Unit 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/24/2003 under 37 CFR §1.53(b).
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-19, 22-36, 38-49, 52 and 53 is/are rejected.
 7) ☒ Claim(s) 20, 21, 37, 50 and 51 is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/04, 6/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

Since application no. 10/431,964 does not have a common inventor with 10/347,079, the priority link is broken. Applicants are only entitled to domestic priority for application no. 10/431,964 since there is at least one common inventor with the instant application (Shapiro).

Drawings

Figures 8B, 13A, 13B and 15A should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13, 15, 19, 22-30 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,266,004 (Tsumurai et al. hereinafter) in view of United States Patent No. 6,183,204 (Chang hereinafter) and further in view of Applicants' admitted prior art.

Tsumurai et al. disclose a desk fan (col. 1, lines 6-8) comprising a base 48 for engaging a mounting surface; a housing 1, 23 comprising a bottom 1B, a top 17, and at least one outer wall extending between said bottom and said top, said housing having a longitudinal length that extends upward from said bottom to said top and having a maximum cross-sectional width taken along a horizontal plane through said housing, wherein said longitudinal length is at least 1.5 times said maximum cross-sectional width ($600\text{ mm} \geq 1.5 * 165\text{ mm}$; see col. 5, lines 38-44); an air inlet 28 and an air outlet 5 in said housing; and an air generator 6 disposed within said housing and in fluid communication with said air inlet and said air outlet.

The longitudinal length of said housing is less than about 762 mm (600 mm).

The maximum cross-section width of said housing is less than about 90% of said longitudinal length of said housing ($165\text{ mm} < 90\% * 600$).

The maximum cross-section width of said housing is less than about 304.8 mm (165 mm).

Tsumurai et al. further disclose a rotator mechanism 38, 44 for moving said housing 1, 23 relative to said base 48. Said rotator mechanism comprises an oscillator 38 for oscillating said housing 1, 23 relative to said base 48 about a substantially vertical axis 33 of rotation, or said rotator mechanism comprises a rotator 44 for continuous rotating said housing 1, 23 relative to said base 48 about a substantially vertical axis 33 of rotation.

Said housing 1, 23 rotates about a first axis of rotation 33 and said air generator 6 has a second rotational axis 11, said first axis of rotation 33 substantially parallel to said second rotational axis 11 (see at least Figs. 7 and 3B).

Tsumurai et al. further disclose: an area of oscillation defined by an area of movement of said housing about an axis of rotation 33, a maximum width of said area of oscillation taken along a horizontal plane through said housing; and a base 48 envelope defined by an area taken along a horizontal plane through a lower portion of said base, a maximum width of said base envelope taken along a horizontal plane through said base, wherein said maximum width of said area of oscillation (165 mm) is less than said maximum width of said base envelope (210 mm). Said maximum width of said area of oscillation is substantially equal to said maximum cross-sectional width through said housing (165 mm).

Said air generator 6 comprises a unitary blower assembly.

Based on the enabling disclosure of Figure 4, a minimum set back distance between a leading edge of an impeller 6 of said air generator and an air outlet grill 5 of

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said housing 1 can be measured, wherein said minimum set back distance is at least 20% of a diameter of said impeller 6.

Tsumurai et al. do not disclose a support column having a first end connected to said base and extending upward from said base to a second end connected to housing; a rise height defined by a distance from said second end of said support column to said mounting surface, wherein said rise height is at least 40% of said longitudinal length of said housing.

Finally claim 30 requires said support column further comprises an adjustable support column for adjusting a height of the housing above said mounting surface.

Chang discloses a fan which can be used as either a desk fan (Fig. 6) or a floor fan (Fig. 4) with an adjustable (col. 2, line 20) supporting column 61 for the purpose of adjusting the fan so that a desired flow of air is obtained.

Applicants have admitted in Fig. 17B, that a prior art pedestal fan is arranged to have a measurable air pattern from about 40 inches to about 68 inches from the floor. The prior art fan is a pedestal fan and the center of the air pattern is about 54 inches from the floor.

Since Tsumurai et al. is a tower desk fan and Chang teaches that desk fans should be convertible to a floor fan having a support pole, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the Tsumurai et al. desk fan so that a support pole elevates the fan at a desired position off the floor, as taught by Chang, for the purpose of converting a fan which rests adjacent to a surface to a fan which is elevated above said surface. Furthermore, Applicants admitted in Figure 17B, floor fans are positioned above a floor at a height which provides a measurable air pattern from about 40 inches to about 68 inches for the purpose of cooling a user whom is standing. Therefore, it would have been obvious at the time the invention was made for one having ordinary skill in the art to design the length of the Chang support pole so that the Tsumurai et al. housing is centered at about 54 inches from the floor for the purpose of cooling a standing user.

After said obvious modification, the supported tower fan comprises: a rise height of about 40 inches (claim 2); said overall length being about 68 inches (claim 4); the rotator mechanism 38, 44 expressly shown in Tsumurai et al. positioned between the housing 1, 23 and the Chang obvious support column 61 (claim 10); the Chang support column 61 substantially aligned with the housing axis of rotation 33 (claim 11); the rise height being 170% of the length of the housing (claim 22); the rise height being 58% of the length of the device (claims 23-24) the length of the housing being 35% of the length of the device (claims 25-26); the rise height being about 40 inches, the housing length being about 24 inches and the overall length being at least 45 inches (claim 27).

Claims 14 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,266,004 (Tsumurai et al. hereinafter) in view of United States Patent No. 6,183,204 (Chang hereinafter) and further in view of Applicants' admitted prior art as applied to claims 1-13, 15, 19, and 22-30 above, and further in view of a design choice.

The modified Tsumurai et al. reference discloses, as explained in detail above, a tower fan supported on a pole, wherein the fan is elevated by said pole to provide a flow of exhaust air at an overall area that substantially conforms to a width and a height of a user's torso. The fan comprises a housing having an area of oscillation and a base having a width, but does not expressly disclose the maximum width of the area of oscillation is less than 70% of said width of said base, nor the impeller having a maximum velocity of at least about 400 fpm when measured 6 feet from said housing, and said blower assembly generating a thrust between about 0.1 lbs and about 0.3 lbs in a direction opposite to a direction of the flow of exhaust air.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to size the impeller motor to obtain the specific air flow velocity and thrust values because Applicant has not disclosed that the specific air flow velocity and thrust values provide an advantage, are used for a particular purpose, or solve a stated problem. One having ordinary skill in the art, furthermore, would have expected Applicants' invention to perform equally well with the variable speed motor of Tsumurai et al. because the user could adjust the force of the

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airflow. Also, when adding the support pole to the base, one having ordinary skill in the art would have increased the diameter of the base so that when the fan is operated at maximum thrust, the center of mass of the device is not tipped over the periphery of the base, causing the unit to fall to the ground.

Therefore, it would have been an obvious matter of design choice to further modify Tsumurai et al. to obtain the invention as specified in claims 14 and 16-18.

Claims 31-36, 38, 41-49 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,266,004 (Tsumurai et al. hereinafter) in view of United States Patent Application Publication No. 2002/0034442 (Escobar et al. hereinafter) and in view of Applicants' admitted prior art.

Tsumurai et al. disclose a fan comprising: a base 48 for stabilizing said fan on a mounting surface; a housing 1, 23 having an elongated shape, a longitudinal length of said housing extending upward and being at least 1.5 times a maximum cross-sectional width of said housing taken along a horizontal plane of said housing (600 mm \geq 1.5*165 mm; see col. 5, lines 38-44); an operating configuration when said home comfort device is assembled for operation, in said operating configuration said home comfort device comprises: said base 48 having a maximum cross-sectional width.

The fan further comprises a unitary blower or air generator 6.

The housing is about 165 mm and the base is about 210 mm.

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Tsumurai et al. do not disclose a support column for elevating said housing above said base, wherein said support column has a first end connected to said base and extends upward to a second end; a rise height defined by a distance from said second end of said support column above a bottom of said base, wherein said rise height is at least 40% of said longitudinal length of said housing; and said housing is connected to said second end of said support column, nor does Tsumurai et al. disclose a non-operating configuration when said fan is disassembled for shipment from a place of manufacturing to a place of sale, in said non-operating configuration said fan comprises: the base disconnected from said support column; and the support column disconnected from said housing.

Escobar et al. however, teach a fan which is used for either a table top fan or a floor fan (Abstract) wherein a support column 5, 7 elevates a fan 2 above the fan base 3 for the purpose of positioning the fan at a desired elevation. The prior art does not give specific dimension of the rise height of the pole but Applicant has provided the prior art statistics in Figure 17B of the instant application wherein the rise height should be chosen to center the distribution of air around a vertical height of about 54 inches for the purpose of delivering airflow to the user's torso.

Therefore, since Tsumurai et al. disclose a table fan and Escobar et al. teach a table fan should have an adjustable support column to control the height of the airflow, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the Tsumurai et al. fan to have an adjustable support

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column thereon for the purpose of positioning the fan at a desired elevation.

Furthermore, since Applicant has disclosed that prior art fans desired elevations deliver air between 40 and 68 inches from the floor, the support pole of Escobar et al. should be positioned at about a 40 inch height off the floor to deliver airflow to the user's torso.

Applicants have also admitted that for shipping purposes, tower fans are arranged in a shipping box like that shown in Figure 5a, wherein the base is separated into semi-circular halves 36a, 36b and a support pole 34 is positioned parallel to the fan housing 30b.

Therefore, since the modified Tsumurai et al. only differs in that the length of the support pole is longer than the prior art support pole 34 seen in Fig. 3B and 5A, and that although the Escobar support pole 5, 7 is longer than the fan housing (40 inches compared with 24 inches), the Escobar et al. pole is collapsible, effectively making it around 20 inches in length, it would have been obvious at the time the invention was made for one having ordinary skill in the art to collapse the support pole of Escobar et al. so that the pole fits within a shipping box having a length defined by the fan housing longitudinal length, as admitted by Applicants in Figure 5A, for the purpose of minimizing shipping space.

After said obvious modification, the supported tower fan comprises: a rise height at least 40% of the longitudinal length of said housing (about 60%); a maximum cross-sectional width of the housing being 28% of the longitudinal length of the housing (claim 41); the rise height being 170% of the length of the housing (claim 42); the rise height

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being 58% of the length of the device (claims 43-44) the length of the housing being 35% of the length of the device (claims 45-46); the rise height being about 40 inches, the housing length being about 24 inches and the overall length being at least 45 inches (claim 47).

Claims 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 5,266,004 (Tsumurai et al. hereinafter) in view of United States Patent Application Publication No. 2002/0034442 (Escobar et al. hereinafter) and further in view of Applicants' admitted prior art as applied to claim 31 above, and further in view of a design choice.

The modified Tsumurai et al. reference discloses, as explained in detail above, a tower fan supported on a pole, wherein the fan is elevated by said pole to provide a flow of exhaust air at an overall area that substantially conforms to a width and a height of a user's torso. The fan comprises a housing having an impeller with variable speed, but does not expressly disclose the impeller having a maximum velocity of at least about 400 fpm when measured 6 feet from said housing, and said blower assembly generating a thrust between about 0.1 lbs and about 0.3 lbs in a direction opposite to a direction of the flow of exhaust air.

At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to size the impeller motor to obtain the specific air flow velocity and thrust values because Applicant has not disclosed that the specific air flow velocity and thrust values provide an advantage, are used for a

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particular purpose, or solve a stated problem. One having ordinary skill in the art, furthermore, would have expected Applicants' invention to perform equally well with the variable speed motor of Tsumurai et al. because the user could adjust the force of the airflow.

Therefore, it would have been an obvious matter of design choice to further modify Tsumurai et al. to obtain the invention as specified in claims 39-40.

Allowable Subject Matter

Claims 20, 21, 37, 50 and 51 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Edgar whose telephone number is (571) 272-4816. The examiner can normally be reached on Monday thru Friday, 8:00 am until 4:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Richard Edgar
Examiner
Art Unit 3745

RE



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3/14/05